

# SEQUENCE LISTING

<110> Salceda, Susana  
Hu, Ping  
Recipon, Herve  
Cafferkey, Robert

<120> COMPOSITIONS AND METHODS OF DIAGNOSING, MONITORING,  
STAGING, IMAGING AND TREATING MAMMARY GLAND CANCER

<130> DEX-0199

<140>

<141>

<150> 60/192,277

<151> 2000-03-27

<160> 35

<170> PatentIn Ver. 2.1

<210> 1

<211> 780

<212> DNA

<213> Homo sapiens

<400> 1

```
aattacttgt tctcttaaag taaggcctta caccctacta aaatgtgatc aaaattttat 60
tatgaataga tgaaaagctg tagctataaa ttatgagagt aagtttattt tatatttatc 120
caaatgtagt tcataatagc ataatagcaa cttcactaaa tcttagaata aaaaatgaat 180
aaaatgttaa ttttttggag gaaatgggta attttttcta caaaattgtg tgacagcttt 240
acagacctta ctcttcacaa ttgacttgaa cattaacatc acaaagaggg tcctgtttac 300
aaaagaatag tcaagaactt catgaatttt tgacagtga ctttttctaa ccctttaatc 360
caaatatatt taagtgtcca tcgtcttcct ttatccaact catttggtta ctagttttct 420
tctgtgagtt cctttgccta taattgaagc agttctctga aatcacccaa actgatttta 480
tgaaagccca tgcttttgga aagatttgca cttcggcttt gcaatctatt tacattgact 540
gtacttgcat tgtattgcta gatgttgact atcagttagg acaatcaaaa agatattaga 600
taatgggcag ggataaatca gaagttactg tcaataacaa agttatgttt tatgggtatt 660
ttataggtga taaattcatt actgagcaat ttcatatcat gttttaattc tcctgggttg 720
aatatggtga ctctggagac tcaaatatta aatattggtg taaaggcaaa aaaaaaaaaa 780
```

<210> 2

<211> 392

<212> DNA

<213> Homo sapiens

&lt;400&gt; 2

```

acaaaattat gcagagacta ctagatagcc attaaaatcc tctctcttct ccttccaaag 60
taatggaatt gaagctgacc acatggtcac ctagccacac gttcattggc atcctttcat 120
ttctaagttc cctccaatac aatgtgctgc ggggaagccg ctggtagctt aagatcctcc 180
tggcagctgt cacctgtatg taatggtgac ctagcttaat cagccaacaa tgccatagga 240
gatggtgcag cagatacctg gaagggaatc ctaattcttt ctaatgtgca cagggattga 300
gctactcact accaggcacc ttaagactat ggaaagaaaa atacatgatt ttagtcattt 360
tgaggagggg aggcttggag gcttgggaagc tt 392

```

&lt;210&gt; 3

&lt;211&gt; 280

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

```

actatcttta tgatgcttga atccaaactt gttccacact ccaaaatgct tctgcagccc 60
ctatgttcct gaagcaaccc ctcttctctg gcctatagga cctccagcag gtgatggtgt 120
caggacccaa cctcaatgaa accagcattg tgtctggtgg ctatgggggc tctggtgatg 180
gactcatccc cacaggatat aatgttcaga aacaggaatc ttgggtggag gaggggacag 240
gaatggtttg ggggaagcata ggatatgtct aggaaagctt 280

```

&lt;210&gt; 4

&lt;211&gt; 242

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

```

ctgagtttca gtccctggctc tacccttctt ggccctgtggt tctaagcatg ttatttgcct 60
ctctcagctt caactgtgaa gagttcaatt aggtgatcac tttaactttt ctagctcgga 120
tactctgtgc cagctctgga accatgcttt ttggtgtctg tgtgtatata taggtcacct 180
gtatgtattt aggtctttga gaatctactg gactatcaaa aaaaaaaaaa acccacaaaa 240
ga 242

```

&lt;210&gt; 5

&lt;211&gt; 520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5

```

gccttaggtg atgcagcggc caagagttga aactcatgat tatggtatct tttccttcta 60
atctacaggg tgatgttgat ccttttccat ccggtgtcca ggcactctgt tgagagccaa 120
cgataagatc tgcagcttgt ggctctttct tttccctcag gtggtgcacc tgctgttgct 180
cctggctagt cttgtcctca cctcagatcc tactgatgtt accttccagg gatctagcaa 240
agattctctt ctgacctat cttgggttgt ctctctgoga catttgctat gatgctactc 300
actcagctgt tgctagctag ctccacagcc acctctcacc tatttctggg cctcatctaa 360

```

```

acatataaaa accaaaattg gttcagaaaa ctaaataatca tggcctccct ctacttgctc 420
cagcaagtag atgtgaccct actcttagtt atctcaggat ggagtgcctgc ccaagaagtg 480
atctatttca aaatcctgat tggaggagga agcaaagctt 520

```

```

<210> 6
<211> 218
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (127)

```

```

<220>
<221> unsure
<222> (129) .. (130)

```

```

<220>
<221> unsure
<222> (155)

```

```

<400> 6
accacagcag gttatggttc atacaggact taaatgacca gtgaatactg caaaaaaata 60
aagctattct gcaaaatctg tgtaaaaaca acgcgtagta tcagaataga acagttaaaa 120
cagaagnonn agcagttact gaagacagac ggcanacagg cagctgcgcc acaggggtga 180
gcgtcccata gccatgtaca gcgtctaagg gaccgagt 218

```

```

<210> 7
<211> 526
<212> DNA
<213> Homo sapiens

```

```

<400> 7
actgaataca gtagacaact gtaacacata tgggtattatg tgtatcttac catatacaaa 60
ggtaaagtgt tctgccacaa tatcatgagc tttaaacgg ggtatgactt cattaggcca 120
taggagtttt cagcttcatt ataatcttat agaaccacgg atggatatatg cagcctactg 180
ctgatcacgt tgggtatacag acacgtattc ctttctccca cacggcctgt tactagccac 240
gagtgggtga ttggctgaga gtaatgcact gtaggcagtt gtggctactt ttacgagaac 300
tgtcttgca ggggagatgt atttaaacca gggacagatg ggccacagga gaaacataac 360
agctatggct gaaattcatg tgtattctac aattgccatg gccatttaac tcaataaata 420
tgtgagtttt tttatcatct gccaaagcatt gttcataatt aacaggacaa aaacccaaac 480
ttttgccttt ttggagccta cagtctagaa taaggagaga aacaaa 526

```

```

<210> 8
<211> 276

```

<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (96)

<220>  
<221> unsure  
<222> (113)..(114)

<220>  
<221> unsure  
<222> (132)

<220>  
<221> unsure  
<222> (171)

<220>  
<221> unsure  
<222> (180)..(181)

<220>  
<221> unsure  
<222> (207)

<220>  
<221> unsure  
<222> (235)

<220>  
<221> unsure  
<222> (239)

<220>  
<221> unsure  
<222> (257)

<220>  
<221> unsure  
<222> (259)

<400> 8  
aaaaaaagga ggaggagaaa atggaagtgg atgaggcagg caaaaaggag gaaaaagaga 60  
ggaaaaagag aaccgttgga gccaaactta ccaggnttca ttagatacac ccnagcccg 120  
agttatgcct angcccagct taagcgtaca ctaaccatag ccgtgagacc ntagtagatn 180  
naccacgcct ttcaagaaca cactcantct attgtgagcg cccatcactc caatntccnt 240

ggacacgggc acttacncna gcttgacat gaacaa

276

<210> 9

<211> 662

<212> DNA

<213> Homo sapiens

<400> 9

actagaacgt gaagcacctt tathtagcaa ctaattacaa cagagttgct taagattgat 60  
gcgactaaa ctcatcatg acaactagca acaacgatta ctgacactac acttagctaa 120  
gcttccattc acttcacgcg aatcttactg cccaacagca tcacacatta tcccctgaaa 180  
ctctccactc ttctcctcct gacctatgaa gcatcacaac actgacggca tcaaccaagc 240  
tgcgcctaac ttctccttca gcgcgcttct gcctatctaa cacgacttct aacactgacc 300  
gcatgactac ctctgctaca acgatactcg taacaaacga acgcgccttg gaccattaac 360  
ttattcacag ttctcccaac tctgaccacc tcttccctac cctctctcac acgcggaacc 420  
cctctgatac acctaaatac cgctccacgc gggcgcgcg taaaccact cactggccac 480  
caatcaaaa accactccta aacacttacc agcacttcct ccacgctaca cagtgtcccc 540  
aaaagataac agcccaaact ccctgcctac actgctcact actacacaca cccaccccaa 600  
caccaccaca cacaaccccc caccacaccc ctaccgccac aaacacaaca cgcaccaacc 660  
ac 662

<210> 10

<211> 620

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (195)

<400> 10

acacatttag gtaatctctg tgttccccag cccctctaaa gagcatcact gtgtcctcct 60  
tgcttatatc catgcctctc gtcaggaaag gccttgccct ttctctctat gccaaactccc 120  
cactgtccct cctgatacat ctccaatatt acctcttctc caacctccct gggagagtta 180  
attacctcct ccttngggct cctataacaa cttttacatc tcttgcaaga gggtacttga 240  
attacttggt tacatacatg tctatctccc aaacaagtct aaaaatggta ggcttctaaa 300  
taattatacg tttgataaat atgaatgaat gaccttttct atggaaagct aggcgctaaa 360  
ggtgatagag agataacatg cacatacgag ctctcaaggg aaatagacag acacatagat 420  
aatgtataag tagaataata attctttgaa ttgaaatccc caggggaaaca ttttactca 480  
accgaaaatc taactgcaat cttaaagattt tcacatacaa ccacttggca ttgacttaca 540  
actccaccta gatagggtca taaagtcaga tccttttctt gttacattct tagagctcat 600  
aaaggtggcc tgaacaggca 620

<210> 11

<211> 486

<212> DNA  
<213> Homo sapiens

<400> 11  
ggcgccctgga gctgcgtgag acgccgtcat tctcccacac cctgggagca gtggggaacc 60  
ctgtatgcga cttcacagca caccacgctc cgtgtgagct attaaaggcc caccacgcat 120  
cctcgtcttt cagtgcact ttcctgaaga aataatacaa tctggaatgg gctacagaat 180  
ctatccccta ggggtgagtga caggaggggg atgggtgaaa caaagtcaca tggctgtaag 240  
cagctatcta ctgaagcagg atgggttacct ttctctactt ttatgcttga aatttctcac 300  
aaataaagat gagaaaatac aaaaaaaaaa aaaaaaaaaa cacacacaaa aaacgccggg 360  
ggaacaccgg gccctacggg tgccccgtgt gaacatggga tacgggcccc acaacccgag 420  
aaaaatagca cacacagaga gagaaagaga ccgacgcaga accgacgacg acgcagagac 480  
agacag 486

<210> 12  
<211> 322  
<212> DNA  
<213> Homo sapiens

<400> 12  
actacatttc caaccctgag atggagtgtt ataggagcag ggaaatcagc cacgggtggg 60  
tgtgggcagg aatgggttaa cactactgtt atttcagtaa tgtgataatt ggagttttaa 120  
gggtatgtgt gtgtgttttg ggaaagtaga gtggagcagg agaaagggtg ttagagacaac 180  
tgtgttagag aaattgaatc tcagatgggt agtgttttat tttcccacct tactcttgct 240  
tctttaagtt actactccca caggagattg gctatagact gacatgagtg agtaaagtta 300  
ctcattaggg gaatctaagc tt 322

<210> 13  
<211> 519  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (146)

<220>  
<221> unsure  
<222> (322)

<400> 13  
acgactaata tcttcaattt actaagaaga taaagaggtc gataaataag gaggtcaagc 60  
ccgcttttgc aacggtcaca cacggaaaga aagcagaacc acgaaaactg acacttcgcg 120  
ctgctcaccg tgcggcgtgg gcgcancatg aaggtctctt tgacactccc ttcggcctac 180  
cgctcgaccg cgattctcga ctgtgcacat cttattctgc gccctgcagc gcgagctaca 240  
cgcacagggt cggtattttt catttagctc acggacagga cgcttgctg cttgaaggct 300

tacgcactac agcttactca anggcaacac gcataaccta accaatgaga ctcccgcaag 360  
 ctttatgccc aaaaaccctc gcgactgcgt atggccattc catggccagc gacgctctag 420  
 gcgataactc cactactgcg actgctagca cttccgtgac taatcccctg gcggcggttg 480  
 aagcatttgt cataagcttt ccgtgtgcgc tgactcaaa 519

<210> 14

<211> 248

<212> DNA

<213> Homo sapiens

<400> 14

acttccagcc tccagaaatg agaaagaata attttttttg tttcagccac ccagtcatat 60  
 tagctgtggc agcctgaggt gactaatatc ctgccaaaaa cgcacagcca aacaccaggc 120  
 agacccaaac tgagggatcg tgagaataga tctggcctat aatcagaagt gtcgagggtca 180  
 tgaacgtcaa gggaagattg aggaaccatt ccagacaaat gtaattaggc acactctcac 240  
 acaagctt 248

<210> 15

<211> 473

<212> DNA

<213> Homo sapiens

<400> 15

actcctatct aaatgttgtc tctctcattg atgggcctga aaaaaaacia acatttttita 60  
 aaatgggtata gccacattgg caactttcta aaagtcctaa ttttttctag acaaattgat 120  
 aattttatgct acttattttt agtgtaacat ttcctcaaat gattaaaatg aaatctaaac 180  
 tattttcatc agttttactt ccaattatct tttcttttgc tctattattt cttagagttg 240  
 tcaagggcaa attaattagc agctgtttta attaagaaga attctgattt ctccataataa 300  
 gtgatggcag ctttataatt aatattttta cctgcctgct gacctactaa ttagaatagg 360  
 aaatggcttt tagacaggat cagttggcac tagacatcac cagcactta cacacacatg 420  
 ctcaaatcaa ccttggtgtg agagaacttt aggtgttagt ttatataaag ctt 473

<210> 16

<211> 394

<212> DNA

<213> Homo sapiens

<400> 16

acgttgacat gcactattgc acttgattct tgtaacaaat ttgtaagaaa acaagggtag 60  
 ctattattag tccctcttta tcattattat gaaaacattt ctaaatagaa aaattgagga 120  
 ccataaatgt atacggaaaa tttgttttta aaagaaatac ccaagtgaiaa gcacaatgtt 180  
 ctcaagatcc aggtcaagtt ttcttgata gaaggaataa gtttaacata aaaaccataa 240  
 gtttctatga atatatcttg ttaataaatt taatgatgtg actaattccc aagctctatg 300  
 ttacttagag aactatactt aggatactgt gtattcatcc atacaataaa gtttttttac 360  
 ccaacgaaaa aaaaaaaaaa aaaaaaaaaa gctg 394

<210> 17  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
 gaccaactgt gctccatctc cacgaggttg tgaagagaga aaatgggccc cctgcactac 60  
 agcatgagag ccatcagtta gacaaaaaga agcatggtga gacaggcaag gccctccaga 120  
 gaaagccagg aaggcagtga gtggctttca aaaccgatgt ggtgcattca gaggctggaa 180  
 gatggacaat attactttcc cagaaagttt cgcaaaactt tctcttttgt tggcatgttg 240  
 aaaatagcaa gccattgcct cttcccccg cgcgtgggtc tgctggcaag catgttaatt 300  
 tccagaactc acagaattaa agccagagag gatccttgta actcatcttc tctccctccc 360  
 cagcctccca cagaaccata cccaaaagct t 391

<210> 18  
 <211> 634  
 <212> DNA  
 <213> Homo sapiens

<400> 18  
 acagtttgat tcttgtttgt ctaattttgt agtcaacagc cttctgattt tatagaattc 60  
 tctcttattt tgttctcatg agatctaaaa tcgtctgtgt aattggcttg tggtaaatat 120  
 ctcaaaggag accaatggta aatatctcaa atgagagcat tagagatatt ttaacctctt 180  
 acaaagaggc taaaagcaac ttgtcctatt agaagtgtat ctttaattaag tattgcttag 240  
 aaagtttcta agacatcatg attatactga agttagattc tggacaaaagt gtatgagaaa 300  
 gtttacggct ataaaagggt tgctgagagt ttttccttaa ataacgcatg catgaatcct 360  
 ttctttgtct atgaattttt aaagtattta tgggccctcc ggtctcttaa atttaaagt 420  
 cattttcact ttctactctc ttctatttct aagacaaatc tttttcttct tacgtttttt 480  
 acttttcaa gtttgggaaa aaatactgat ttttgaagc ctattttatt gccttctttc 540  
 atagccatct tgtgctcatt ttctgtccta atatttatcc cggacaattg gcttgggagc 600  
 caagcataat attttttgag gtcgccggat ccag 634

<210> 19  
 <211> 239  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 actagagagc attattcctg attaagtgtt aagaaaagtt ttattaataa cattaattct 60  
 ctagataatc actttttata tcctttcaag atgtctctat cttgaaacat ttatctgcca 120  
 cattataaaa atagatatta ttttattcag tttatagaat actcactgtg tttaaggcac 180  
 tattctggac atcgagctgc aatagtgaac ataatcaagt ttctgctctc attaaagctt 239



Sequence of the gene

<210> 20  
<211> 515  
<212> DNA  
<213> Homo sapiens

<400> 20  
actacccccca tgaagtaggt taattaagaa gacaaatgat cagaaaagta gtgagaaaac 60  
tgaaaaaatcc taatgccttg taagtcagta ttagaaaact ttaagaacta agatttcagc 120  
ctgaggaagc tgattaataaa ataaaaataa aaaaccacac caagattgat ggcaatagat 180  
gtaattgaaa agaggaaaca gaactgagga atgatttttg aatttgagta ggaggagggtc 240  
attggtatatt ttagaagggt ttctgtggaa tacagaacac agaaatcatg ttacagagtg 300  
tatataggag gggaaagtat ttaaaaagca cagtcaaggg atacagggca ctcttgaaaa 360  
ttttaacaat taaatgaggt ggtagtagaa aaaaaaaaaa aaaaaaaaac aaaaaaaccc 420  
ggggggcgaaa cacgggccaag aggggtaccc ggggggacaac cggaaccccg gcaccccaaaa 480  
ataatctcaa ccacaacact cccgacaaac cacct 515

<210> 21  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 21  
ccatcgtctt cctttatcca act 23

<210> 22  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 22  
tgggtgattt cagagaactg ct 22

<210> 23  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 23  
tcaattatag gcaaaggaac tcacagaaga aaac 34

<210> 24  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 24  
gtggctcttt cttttccctc ag 22

<210> 25  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 25  
cgcagagaga caaccgaaga 20

<210> 26  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 26  
acctgctggt gctcctggct agtcttg 27

<210> 27  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 27  
tccatctcca cgaggttgtg 20

<210> 28  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 28  
gccttgctg tctcaccat 19

<210> 29  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 29  
tgtctaactg atggctctca tgetgtagtg 30

<210> 30  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 30  
agaggctaaa agcaacttgt cc 22

<210> 31  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 31  
ggaaaaactc tcagcaaacc tt 22

<210> 32  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 32  
agccgtaaac tttctcatat actttgtcca 30

<210> 33  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 33  
gcagcctgag gtgactaata tcc 23

<210> 34  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 34  
gcttgtgtga gagtgtgcct aat 23

<210> 35  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic

<400> 35

ttccaattat tctttctttt gctc

24

ttccaattat tctttctttt gctc